

## DESCRIPTIONS OF A NEW SPECIES AND A NEW RECORD SPECIES OF CHRYSOtoxum (DIPTERA, SYRPHIDAE) FROM CHINA

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**Abstract** This paper describes a new species of *Chrysotoxum* (Diptera, Syrphidae) *C. zibaiensis* sp. nov. from Shaanxi Province, China. *Chrysotoxum arcuatum* (Linnaeus, 1758) is newly recoded from Changbai Mountains, Jilin Province, China. Type specimens are deposited in Bioresources Key Laboratory of Shaanxi Province, Shaanxi University of Technology, Shaanxi Province, China.

**Key words** Syrphidae, *Chrysotoxum*, new species, new record, China.

While checking up the specimens of *Chrysotoxum* (Diptera, Syrphidae), *Chrysotoxum zibaiensis* sp. nov., new to science from Shaanxi Province, and *Chrysotoxum arcuatum* (Linnaeus, 1758), newly recorded from Jilin Province to China, are identified.

*Chrysotoxum zibaiensis* sp. nov. (Figs. 1-8)

Male. Head broader than thorax. Eye clothed with very sparsely white short hairs dorsally, nearly bare. Vertex black, covered with golden pollen and black hairs. Occiput black, golden pollinose, dorsal portion with yellow hairs and some black hairs intermixed, lower portion with shorter whitish yellow hairs laterally. Frons shining black, with black to dark brown long hairs, the basal portion with yellow pollen. Face lemon yellow, with light yellow hairs. A black median stripe extends from base of antennae to mouth margin and traverse below eyes laterally. Cheeks yellow, with light yellow hairs. Antennae black, with antennal segment 3 slightly longer than the basal two segments together, the basal two segments with black hairs. Arista brown yellow, longer than antennal segment 3.

Mesonotum black with yellow stripes laterally interrupted behind scutal suture and a pair of hoar pollinose stripes extended to behind scutal suture in the middle, covered with light yellow to brownish yellow long hairs densely. Scutellum lemon yellow, with a dark yellow semitransparent spot middorsally, clothed with golden long hairs densely and mixed with some black hairs. Pleura black with yellow hairs. The posterior portion of mesopleuron, anepimeron and katepimeron of mesothorax, the anterior and the posterior end of sternopleuron, the upper portion of

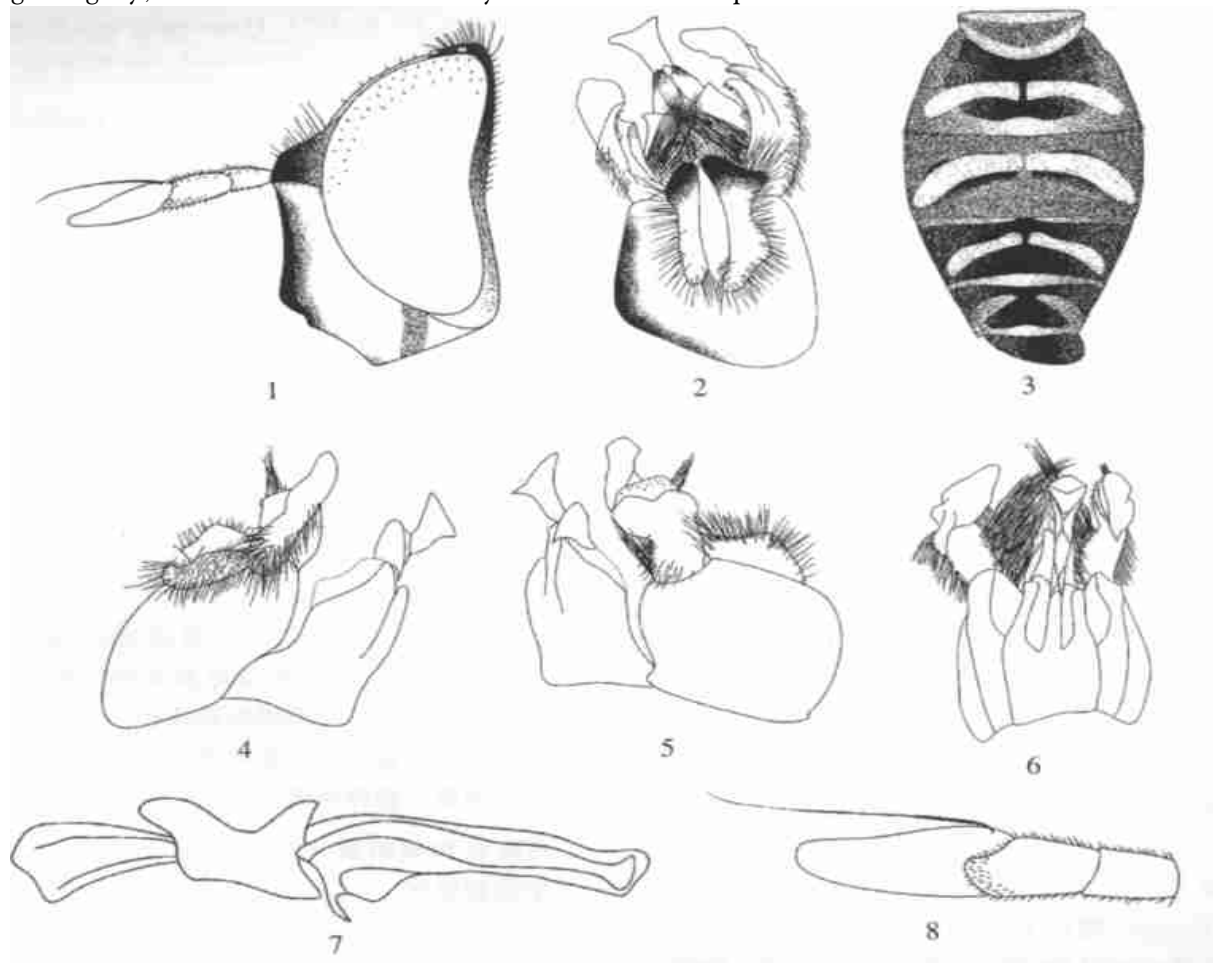
hind spiracle covered with yellow to brown spots. Legs yellow, with coxa and trochanter dark brown, fore and middle femora dark brown proximally, hind femur brown, fore and middle tarsi darker. Middle tarsus covered with 4 rows of black short setae. Hind tarsus black with short and thick black hairs entirely, basitarsus covered with a few rows of longer black setae. Leg hairs slightly yellow to yellow, but hairs on hind femur black anteroventrally. Hind trochanter with a developed stubby prominence, black, with apex obtuse, covered with black short setae inside. Wing transparent, anterior margin tinged with yellowish brown. Squama yellow slightly. Halter reddish brown.

Abdomen black, oval, convex dorsally, with lateral ridges obviously, covered with yellow to light yellow long hairs densely and short black hairs intermixed. Tergites 2 to 5 respectively with a narrow yellow transverse band with the outer ends more or less enlarged and extended nearly to the posterolateral corners of the tergites. The middle of band on tergite 2 interrupted narrowly. Bands on tergites 3 to 4 almost joined medially and extended nearly to the anterior margin of tergites. Band on tergite 5 interrupted broadly in the middle. The lateral margins of the first tergite, the lateral and posterior margins of tergite 2 yellowish brown with the black median portion semicircular. Tergite 3 mostly yellowish brown, only the anterior and posterior edges of the yellow band tinged with black narrowly. The lateral and posterior margins of tergite 4 yellowish brown and so as well as the posterior margin of tergite 5. Abdominal venter dark brown, covered with yellow hairs, the first

sternite yellowish white, sternites 2 to 3 with narrow yellowish white transverse bands anteriorly, sternite 4 with small yellowish brown spots anterolaterally.

Male terminalia. Yellowish brown. Epandrium yellow brown, nearly cylindrate. Cerci asymmetric, the right one large, almost in the shape of oblique 'M' viewed posteriorly, its apical end blackish brown, covered with yellowish brown long hairs densely; the left one smaller and narrower, covered with yellowish brown long hairs densely. Long hairs on cerci intercrossed and extended forwards, by which concealed hypandrium and the most part of aedeagus. The right surstylus slender, bended, with apical end enlarged slightly, the outer side covered with yellowish

brown long hairs, the inner side with a slender fingerlike prominence clothed with short yellowish brown hairs. The left surstylus thicker, with apical end enlarged almost as the head of thighbone. Hypandrium asymmetrical viewed posteriorly, with fingerlike lingua almost as long as lateral arms. Superior lobe triangular viewed laterally. Distal portion of aedeagus enlarged in the shape of trumpet. Aedeagus base almost rectangular viewed laterally, with the dorsal margin concave medially, the upper corner of the posterior portion prominent bluntly circularly, the posterior corner of the ventral portion prominent. Aedeagal apodeme flatten laterally, with median portion skeletonized blackish brown.



Figs 1-8. *Chrysotoxum zibaiensis* sp. nov. 1. Head (♂), lateral view. 2. Male terminalia (♂), dorsal view. 3. Dorsum of abdomen (♂). 4. Male terminalia, right view. 5. Male terminalia, left view. 6. Male terminalia, ventral view. 7. Aedeagus. 8. Antenna.

Female: unknown.

♂Length of body 12 mm, length of wing 12 mm.

Holotype ♂, Zibai Mountain (34° 04' N, 107° 45' E, alt. 2 200 m), Feng County, Shaanxi Province, 27 June 2003. Paratype 1 ♂, Zibai Mountain (34° 04' N, 107° 45' E, alt. 2 100 m), Liuba

County, Shaanxi Province, 26 June 2003, collected by HUO Ke-Ke.

The new species is similar to *Chrysotoxum tiantaiensis* Huo et Zheng, 2004, but differs in: the yellowish brown portion of tergites 1 to 2 broader laterally; tergite 3 almost entirely yellowish brown;

tergite 4 yellowish brown laterally; terigtes 2, 4 and 5 each with a yellowish brown rim posteriorly; male terminalia obviously different and covered with yellowing brown hairs.

Distribution. China (Shaanxi).

Etymology. The specific epithet is derived from the type locality - Zibai Mountain, Shaanxi Province.

### *Chrysotoxum arcuatum* (Linnaeus, 1758) New record to China

*Musca arcuatum* Linnaeus, 1758: 592.

*Musca interseum* Gefferoy, 1785: 479.

*Musca vespiforme* Gefferoy, 1758: 478.

*Chrysotoxum hortense* Meigen, 1822: 173.

*Chrysotoxum scoticum* Gurtis, 1837: 653.

*Chrysotoxum alpinum* Randani, 1865: 141.

*Chrysotoxum nigropilosum* Giglio Tos, 1890: 142.

*Chrysotoxum angustifasciatum* Mik, 1897: 115.

Specimen examined. 1 ♀, Changbai Mountains, Jilin Province, China, 12 Aug. 1977.

Distributions. Iran, Mongolia, Japan, Europe, Former USSR.

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## 中国长角食蚜蝇属一新种及一新纪录种 (双翅目, 食蚜蝇科)

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摘要 记述了中国长角食蚜蝇属 1 新种: 紫柏长角食蚜蝇 *Chrysotoxum zibaiensis* sp. nov., 模式标本保存于陕西理工学院生物系陕西省资源生物重点实验室动植物标本馆。中国 1 新纪录种: 弓斑长角食蚜蝇 *Chrysotoxum arcuatum* (Linnaeus, 1758)。

紫柏长角食蚜蝇, 新种 *Chrysotoxum zibaiensis* sp. nov. (图 1~8)

雌性 未知。

♂ 体长 12 mm, 翅长 12 mm。

正模 ♂, 凤县, 2003-06-27; 副模 1 ♂, 留坝, 2003-06-

26, 霍科科采。

新种近似天台长角食蚜蝇 *Chrysotoxum tiantaiensis*, 但新种腹部第 1~2 背板侧缘黄褐色区域宽, 第 3 背板几乎整个黄褐色, 第 4 背板侧缘黄褐色, 第 2、4、5 背板后缘黄褐色, 雄性尾器不同, 新种尾器被毛黄褐色。

词源: 新种种名以模式产地命名。

弓斑长角食蚜蝇 *Chrysotoxum arcuatum* (Linnaeus, 1758) 中国新纪录

观察标本: 1 ♀, 吉林长白山, 1977-08-03~12。

国外分布: 伊朗, 蒙古, 日本, 欧洲, 前苏联。

关键词 食蚜蝇科, 长角食蚜蝇属, 新种, 新纪录, 中国。

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